${\tt GACGTTTCCGGGCAAGAGACCGACTGGCGGAGACCGCCTTCCGGCAGAAGCTGGTCAAATCGAGGATGCCATGAGGAAAGCTGGTG} - 180$  $M \quad R \quad K \quad A \quad G$ TGGCACACAGTAAATCCAGCAAGGATATGGAGAGCCATGTTTTCCTGAAGGCCAAGACCCGGGACGAATACCTTTCTCTCGTGGCCAGGC 270 V A H S K S S K D M E S H V F L K A K T R D E Y L S L V A R TCATTATCCATTTTCGAGACATTCATAACAAGAAATCTCAAGCTTCCGTCAGTGATCCTATGAATGCACTCCAGAGCCTGACTGGCGGAC 360 L I I H F R D I H N K K S Q A S V S D P M N A L Q S L T G G CTGCTGCGGGAGCCGCTGGAATTGGCATGCCTCCTCGGGGCCCGGGACAGTCTCTGGGCGGGATGGGTAGCTTTGGTGCCATGGGACAGC 450 PAAGAAGIG MPPRGPGQSLGGMGSFGAMGQ CAATGTCTCTCTCAGGGCAGCCGCCTCCTGGGACCTCGGGGATGGCCCCTCACAGCATGGCTGTCGTGTCTACGGCAACTCCACAGACCC 540 P M S L S G Q P P P G T S G M A P H S M A V V S T A T P Q T Q L Q L Q Q V A L Q Q Q Q Q Q Q Q F Q Q Q Q A A L Q Q Q Q Q Q Q Q Q Q F Q A Q Q S A M Q Q Q F Q A V V Q Q Q Q L Q AGCAGCAGCAGCAGCAGCATCTAATTAAATTGCATCATCAAAATCAGCAACAGATACAGCAGCAGCAACAGCAGCTGCAGCGAATAG 810 Q Q Q Q Q Q H L I K L H H Q N Q Q Q I Q Q Q Q Q L Q R I A Q L Q L Q Q Q Q Q Q Q Q Q Q Q Q Q A L E A Q P P I Q AGCCACCGATGCAGCAGCACAGCCTCCCAGGCTCTGCCCCAGCAGCTGCAGCAGCAGCACCACAGCACCACCAGCAGCACCACCAGCCGC 990  $\verb|QPPMQQPPPSQALPQQLQQMHHTQP| \\$ PPQPQPPVAQNQPSQLPPQSQTQPLVSQA AAGCTCTCCCTGGACAAATGTTGTATACCCAACCACCACTGAAATTTGTCCGAGCTCCGATGGTGCAGCAGCCCCCAGTGCAGCCCC 1170 Q A L P G Q M L Y T Q P P L K F V R A P M V V Q Q P P V Q P AGGTGCAGCAGCAGCAGCAGCAGTACAGACAGCTCAGGCTGCCCAGATGGTGGCTCCCGGAGTCCAGGTCAGCCAGAGCAGCCTCCCCA 1260  $\begin{smallmatrix} Q & V & Q & Q & Q & T & A & V & Q & T & A & Q & A & A & Q & M & V & A & P & \underline{G} & V & \underline{Q} & V & S & \underline{Q} & S & S & L & P \\ \end{smallmatrix}$  $\texttt{M} \quad \texttt{L} \quad \texttt{S} \quad \texttt{S} \quad \texttt{P} \quad \texttt{S} \quad \texttt{P} \quad \texttt{G} \quad \texttt{Q} \quad \texttt{Q} \quad \texttt{V} \quad \texttt{Q} \quad \texttt{T} \quad \texttt{P} \quad \texttt{Q} \quad \texttt{S} \quad \texttt{M} \quad \texttt{P} \quad \texttt{P} \quad \texttt{P} \quad \texttt{P} \quad \texttt{Q} \quad \texttt{P} \quad \texttt{S} \quad \texttt{P} \quad \texttt{Q} \quad \texttt{P} \quad \texttt{G} \quad \texttt{Q} \quad \texttt{P} \quad \texttt{G} \quad \texttt{Q} \quad \texttt{P} \quad \texttt{Q} \quad$ GCTCACAGCCCAACTCCAACGTCAGCTCTGGCCCTGCCCCATCTCCCAGTAGCTTCCTGCCCAGCCCCTCACCGCAGCCCTCCCAGAGCC 1440 <u>SSQ</u>PNS<u>NVSS</u>GPAPSPS<sup>°</sup>FLPSPSPQPSQS CAGTGACGGCGCGGACCCCACAGAACTTCAGTGTCCCCTCACCTGGACCTTTAAACACACCCTGTGAACCCCAGCTCTGTCATGAGCCCAG 1530 PVTARTPQNFSVPSPGPLNTPVNPSSVMSP CTGGCTCCAGCCAGGCTGAGGAGCAGCAGTACCTGGACAAGCTGAAGCAGCTGTCGAAGTACATCGAGCCCCTGCGCCGCATGATCAACA 1620 A G S S Q A E E Q Q Y L D K L K Q L S K Y I E P L R R M I N AGATCGACAAGAACGAAGAACAAAAAAAGGACCTGAGTAAGATGAAGAGCCTTCTGGACATTCTGACAGACCCCTCGAAGCGGTGTCCCC 1710 IDKNEDRKK DLSKMKSLLDILTDPSKRCP

Fig. 4

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TGAAGACCTTGCAAAAGTGTGAGATCGCCCTGGAGAAACTCAAGAATGACATGCGGTGCCACTCCCCCACCGCCCCCGGTGCCACCGAC 1800 LKTLQKCEIALEKLKNDMRCPLPHRPRCHR CAAACAGCAGTACCTATGCCAGCCGCTCCTGGATGCCGTCCTGGCCAACATCCGCTCACCTGTCTTCAACCATTCCCTGTACCGCACATT 1890 N S S T Y A S R S W M P S W P T S A H L S S T I P C T A H CGTTCCAGCCATGACCGCCATTCACGGCCCACCCATCACGGCCCCAGTGGTGTGCACCCGGAAGCGCAGGCTTGAGGATGATGAGCGCA 1980 GAGCATCCCCAGTGTGCTCCAGGGTGAGGTGGCCAGGCTGGACCCCAAGTTCCTGGTAAACCTGGACCCTTCTCACTGCAGCAACAATGG 2070 CACTGTCCACCTGATCTGCAAGCTGGATGACAAGGACCTCCCAAGTGTGCCACCACTGGAGCTCAGTGTGCCCGCTGACTATCCTGCCCA 2160 AAGCCCGCTGTGGATAGACCGGCAGTGGCAGTACGACGCCAACCCCTTTCCTCCAGTCGGTGCACCGCTGCATGACCTCCAGGCTGCTGC 2250 TGCAGGGATGGCCCGCAGCCTCATCGGGGCCAAGGACACACGCCTCCTGTCAGACACTTCTAGGTGTTGGCTTCCTTAGAGAGCCTGGGG 2430 TTAGGTTAGCTTTCCTGCTTTTATCTTCTGCCTTGGGGACCTGCCAAACGAAATCCCACACCTGTACAGAACTGGGATAGGCGCAGTGGA 2520 GCGGGTTGCTTGGGGGGGCGTTGGCCGACTTCTTAGAGAAGGCCCTCCATGTGACTTCCTCCCAGGAGCCAGATGCGATCCTCAGGCTGCT 2610 CTCACCGTGGCCTGTCCACGGTCCAGGTCCATCTCAGCAGCGTGAGGGTGCACTCAGGGTGTTGTTAGAGCGTCTCGTGTGTGCTAGACG 2700 CACCCCTACTCGTTCCTATAGAACACAGAGGACATAGGAAACCCTTAAAACACACATGGGATTCTCTGGTCACAGTTTTGGGTTCAGGCT 2790 GCTGCTGGCTCCCCGCCACCAGCTGGGCCTCACGGCATTCCTGCTGAGCACCGTGGGGCACCCAGGGAGCAGGGGCGTCAGGC 2970 ATCCTGCTGCCGGCACCCCTGTGCCGCTGGCATGAGGGCCGTGTCCCCACTGTGAAGGATGAAGAGCAAGGCCCTCAGGACCCGTGTCCT 3060 TGGGCACCGGCCAGCACCCTCTGGTGAGAAGAGGTCCCCCCTTTTTATGTGCACTACCCCACCATCTGTGATTATAAATTTATTATT 3240 AAAA 3334

Fig. 4. (continued)

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